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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,041

12/12/2003

Theodis Johnson

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7590

02/14/2006

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EXAMINER

PATIDAR, JAY M

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/735,041

Applicant(s)

JOHNSON, THEODIS

Examiner

Jay M. Patidar

Art Unit

2862

AM

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 11-19 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

1. This communication is in response to applicants amendment filed on October 18, 2005.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. Claim 2 is objected to because of the following informalities:

In claim 2, the first direction and second direction are not clearly defined; the first direction as set forth in claim 1 is the direction in which object moves; while the second direction is in the principal surface; it is unclear as to how it is perpendicular to the first direction; it is also unclear as to what varies in the first direction (last line).

Appropriate correction is required.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4,7,11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 584426 in view of GB 2093295.

As to claims 1,7,14,19, '426 discloses an apparatus for measuring the position of an object including a magnetic field source 1, a magnetic field sensor 7,8 and separated poles pieces 21,22 forming an air gap therebetween. The object is moving in the air gap and interacting with the magnetic field wherein the measured magnetic field indicates the position of the object. '426 fails to show the rotation of the object changing the magnetic reluctance of the gap. '295 is cited to show this feature. '295 discloses a coding disc that changes the magnetic reluctance of the air gap within a predetermined number of radians of rotation of the disc. Consequently, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of '426 to have included a rotating disc in place of the object 9 as taught by '295 to determine the angular position of the disc.

As to claims 2-4,11-13, it is known in the magnetic field art to have a disc or object that vary in either thickness or width to change the magnetic field in the air gap to determine the position of the disc or object (e.g. note 6,323,641, fig. 3; 5,631,093).

As to claim 15, comparing the measured magnetic field data with predetermined data would be within the level of ordinary skill in the art.

As to claim 16, '426 discloses a magnet 1 in fig.1.

As to claim 17, '426 furthermore discloses that magnetic field can also be generated by an electro-magnet 13.

As to claim 18, '426 discloses a magnetic field sensing element 7 as Hall element.

The method claims recited for using the apparatus in claims 14-18 are an inherent use of the apparatus of '426 in view of '295 and are rejected on the same grounds. One of ordinary skill would find it inherent that the apparatus of '426 modified with '295 operates in the functional manner claimed by applicant.

5. Applicant's arguments with respect to rejected claims have been considered but are moot in view of the new ground(s) of rejection.

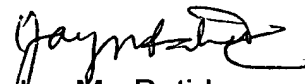
6. Claims 5-6,8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay M. Patidar whose telephone number is 571-272-2265. The examiner can normally be reached on M-Thur 7:00-5:30.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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February 7, 2006